

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020731**Date Inspected:** 20-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12BE (Deck Panel to Edge Panel hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA3002-006. The welder identification was 044504 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the weld connecting the Deck Panel to Edge Panel at work point E5, Bike Path side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20200.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Deck Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete

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Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12A-003. The welder identification was 040320 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the weld connecting the Deck Panel at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20192.

Segment 12BE to Segment 12CE (Deck Panel Corner Assembly, Transverse Splice weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12A-002. The welder identification was 040320 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as the weld connecting the Deck Panel Corner Assembly at transverse splice. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20192.

Segment 12BE to Segment 12CE (Side Panel, Transverse Splice weld)

This QA Inspector observed the repair welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12E-003. The welder identification was 040367 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-345-FCAW-3G(3F)-ESAB-Repair. The piece mark was identified as the weld connecting the Side Panel at transverse splice, Bike Path side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20185.

Segment 12BE to Segment 12CE (Side Panel Corner Assembly, Transverse Splice weld)

This QA Inspector observed the repair welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA6502-011. The welder identification was 052763 and observed welding in the 3G (Overhead) position using approved Welding Procedure Specification WPS-345-FCAW-3G(3F)-ESAB-Repair.. The piece mark was identified as the weld connecting the Side Panel Corner Assembly at transverse splice, Bike Path side. ZPMC performed repair welding in accordance with Welding Repair Report B- WR20185.

Segment 12BW to Segment 12CW (Deck Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12A-001. The welder identification was 041713 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as weld connecting the Deck Panel at transverse splice.

Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (Deck Panel Corner Assembly, Transverse Splice weld)

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This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12A-002. The welder identification was 040656 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as weld connecting the Deck Panel Corner Assembly at transverse splice.

Segment 12BW (Longitudinal Diaphragm to Bottom Panel weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3005K-090. The welder identification was 046704 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-Tc-U4b-FCM-1. The piece mark was identified as weld connecting the Longitudinal Diaphragm to Bottom Panel at work point W4.

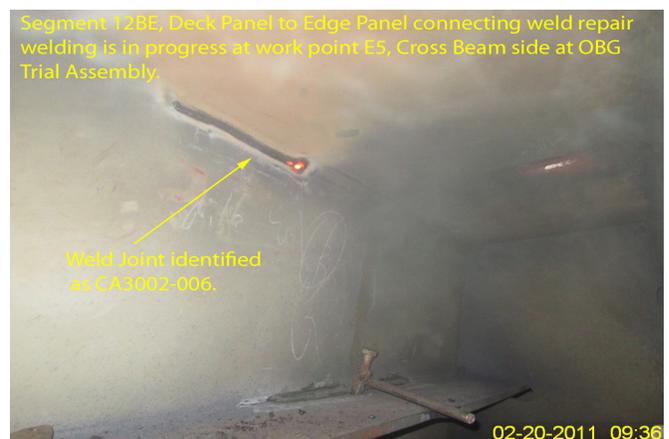
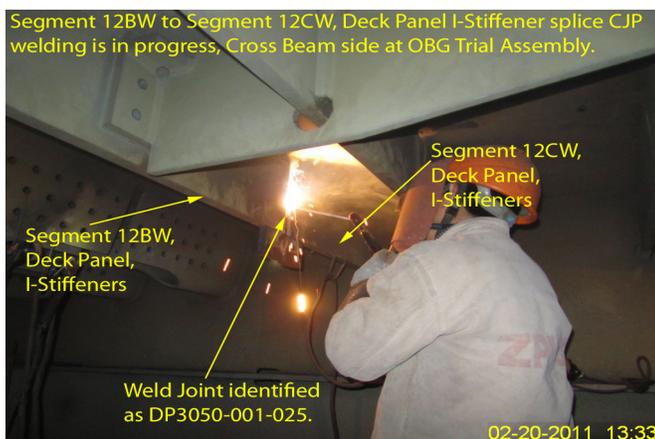
Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (Deck Panel I-Stiffener Splice weld)

This QA Inspector observed the in process welding operation by the Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as DP3050-001-025. The welder identification was 041713 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b-FCM-1. The piece mark was identified as the Deck Panel, I- Stiffener Splice weld at Cross Beam side.

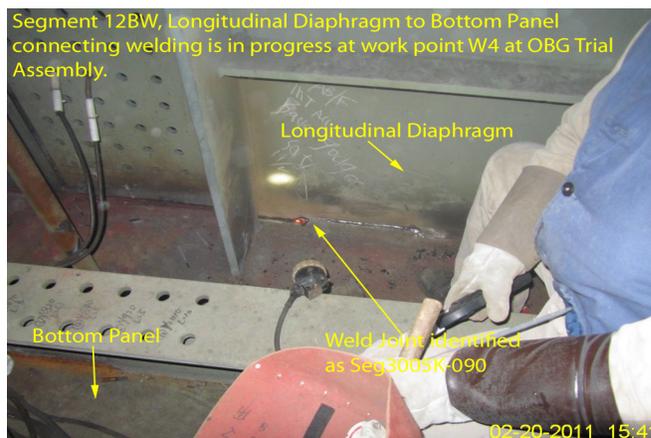
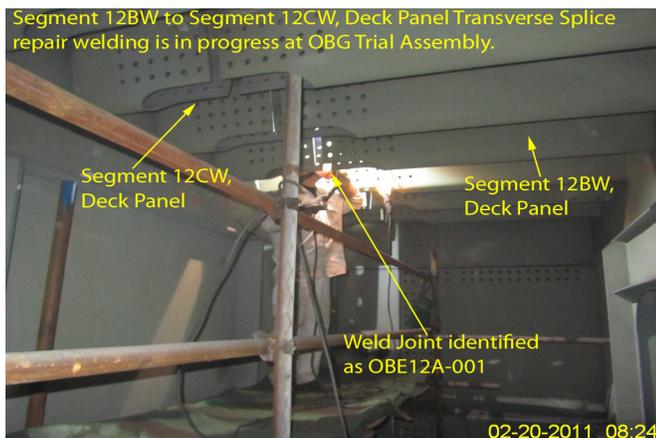
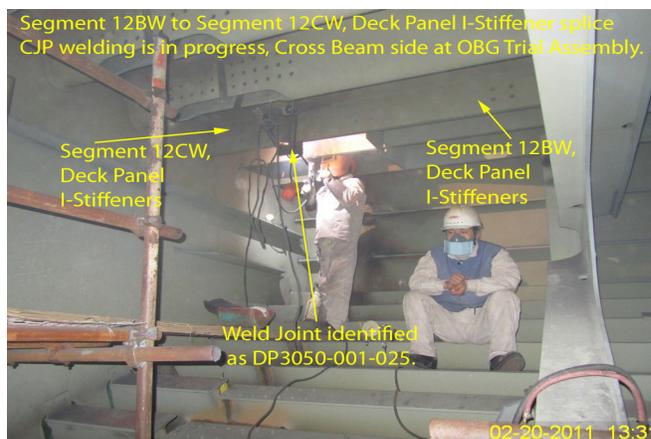
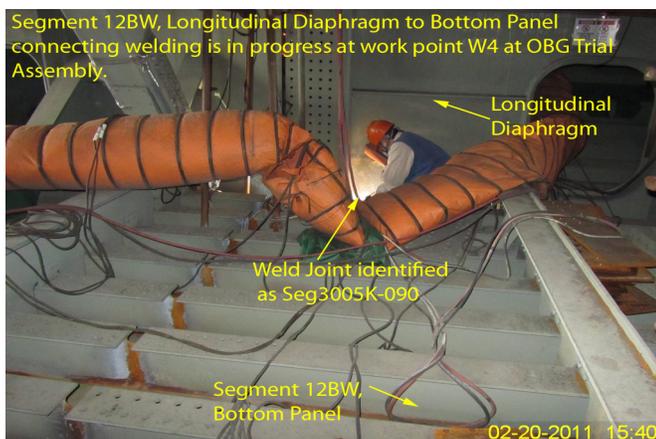
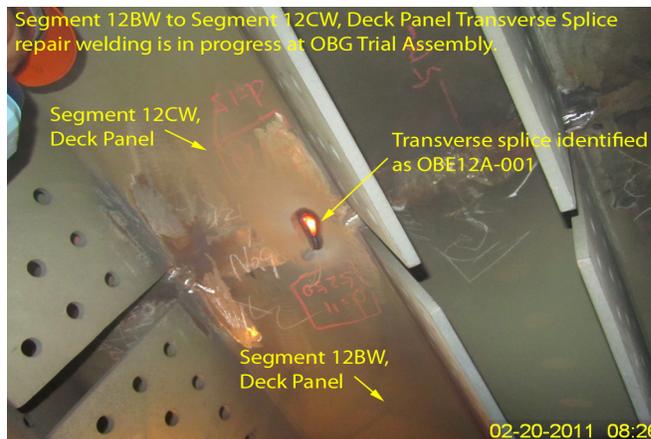
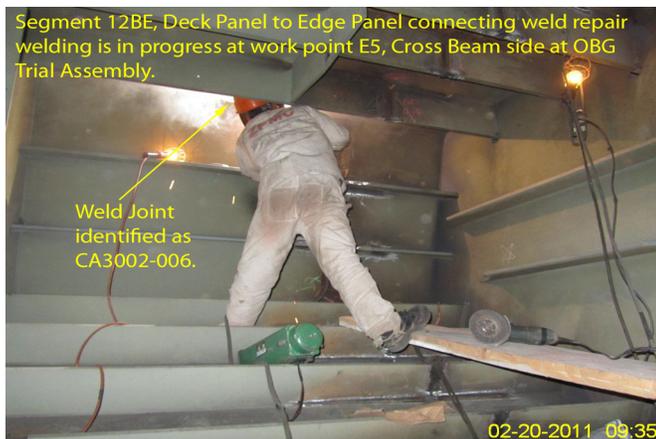
Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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## Summary of Conversations:

No relevant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
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<b>Reviewed By:</b>	Miller,Mark	QA Reviewer
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